Net Metering

October 24, 2002

PACIFIC POWER

Making it happen.

Net Metering

- What it is
- How it works
- Who to contact

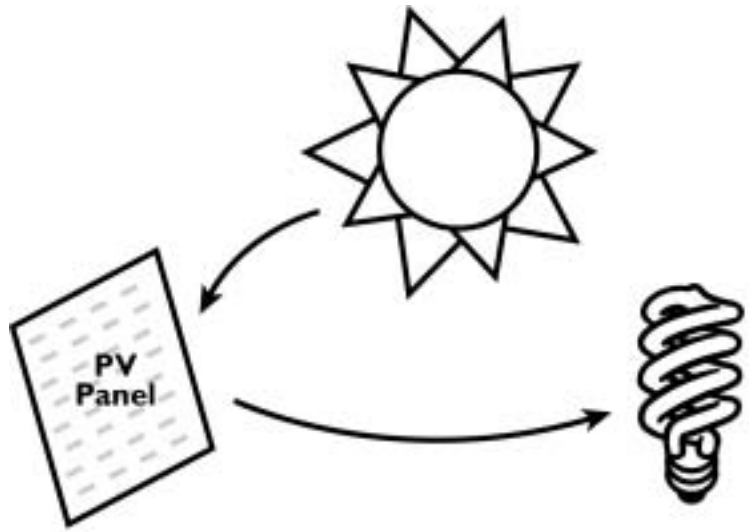
Net Metering

- kWhs from utility *minus* kWhs from customer's generator

- Utility net meter spins both ways "accurately"
  - Two-way meter tracks kWhs provided by:
    - utility
    - customer's generator

Net Metering

- For small electric generator systems
  - Eliminates need for energy storage system
  - Reduces cost of customer's system
  - Allows utility to store excess electric generation
  - Tracks the electricity stored on the utility system as well as what is provided by the utility

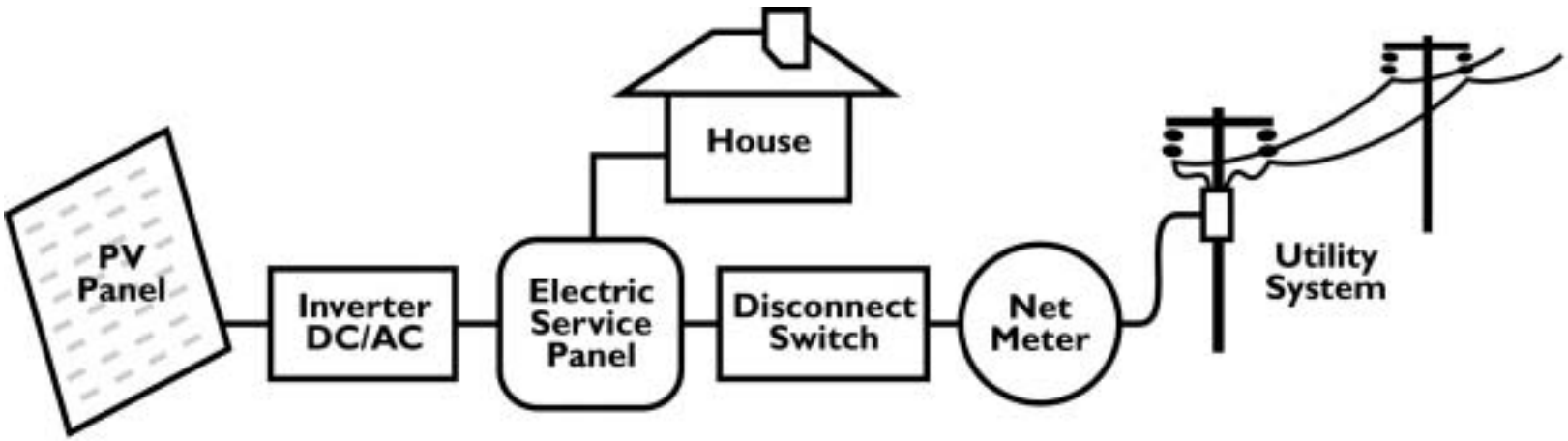


Net Metering

- 25 kW and smaller electric generators
  - Photovoltaic
  - Wind
  - Hydroelectric
  - Fuel Cell (Oregon)

Net metering components

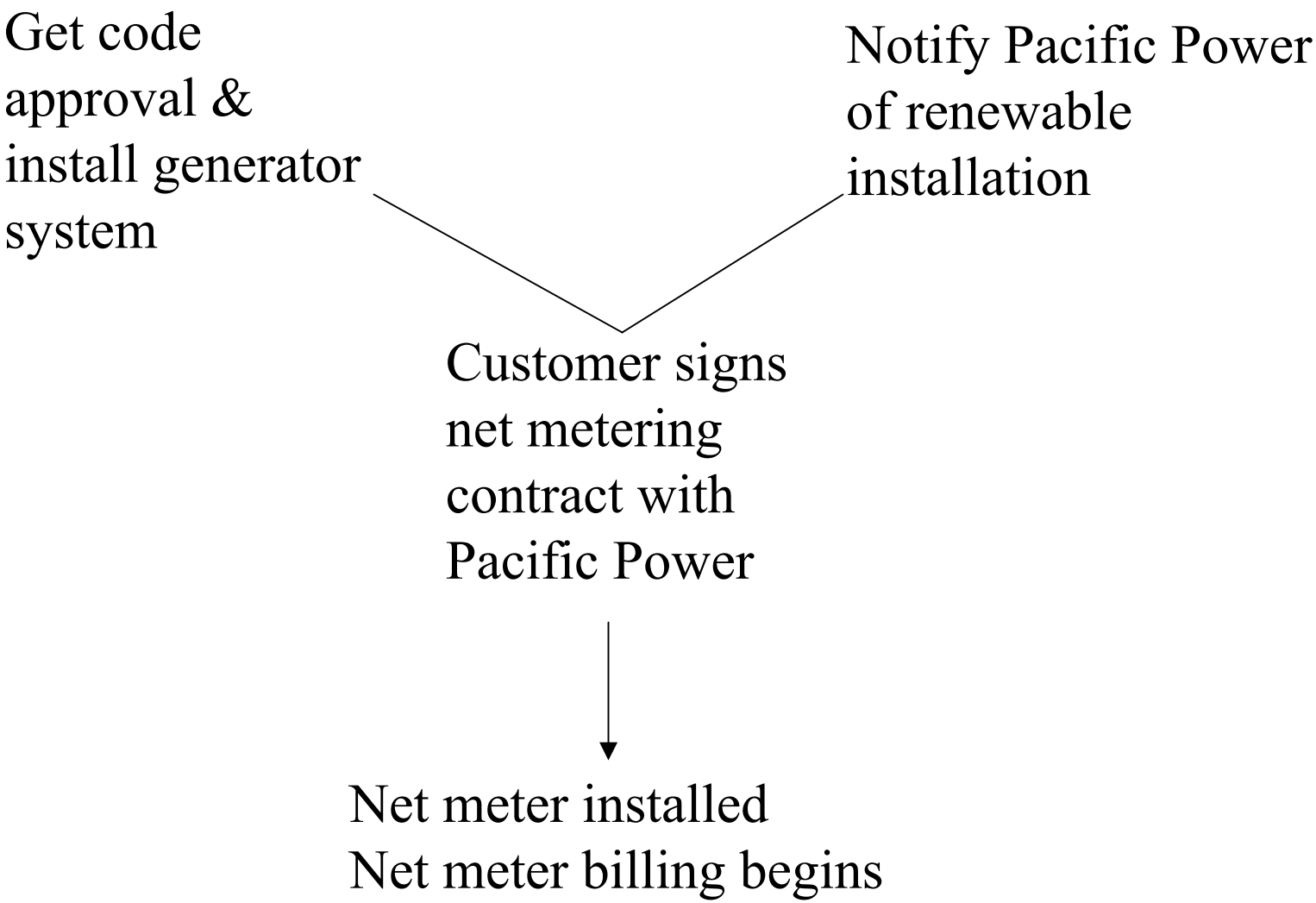
- Major new components of the net metering system
  - PV panel
  - Inverter
  - Disconnect
  - Net meter



Net metering tariff requirements

- IEEE 929 Safety First!
  - Customers
  - Utility personnel
  - Equipment
- Power quality ranges also:
  - Voltage 106 - 132 volts Frequency 59.3 - 60.5 hz
- UL 1741
  - Construction/Protection against injury/Reliability& Performance
- Code officials insure these installations are met
- Once installation meets code the net meter is installed

Net metering process



Net Metering

Net meter billing example

$20.40/month = $7 Basic Charge = 200 kWh x $067/kWh

200 net meter kWh = 500 kWh from utility - 300 kWh from generator

- Pacific Power's price for excess generation in Oregon

Year	Cents/kWh
2002	4.35
2003	4.30
2004	4.22

Net Metering

- Customers give us a call to get started
- 1-888-221-7070

- Thank you